

ABSTRACT OF THE DISCLOSURE

A thermal mass flowmeter with temperature correction. The flowmeter includes a bridge, a signal conditioner, and a balancer. The balancer provides a bridge signal as feedback to the bridge that balances a flow sensor signal and the temperature sensor signal from the bridge. The flow sensor signal or the temperature sensor signal are adjusted by an overheat factor and a temperature correction factor. The temperature correction factor is determined using a predetermined function of a temperature of the fluid. Methods of determining parameters of the predefined function and using the flowmeter for determining a flow rate of the fluid are disclosed. The flowmeter provides means for determining a flow rate of a fluid over a wide range of temperature and flow rates as well as providing means for determining the temperature of the fluid.